

General Construction | One Year Program: Scope & Sequence

Year 1, Semester 1

GC103 General Construction I & II
(19 Weeks)

District Pre-Assessment

Unit 1 (5 Weeks)

NCCER Core Curriculum:

- Construction Safety, Power Tools, Construction Math, Rigging, Communication & Employability skills
- Certification: OSHA- OSHA 10, AHA -CPR|AED| First Aid, Stop the Bleed

CTSO Integration (Leadership Skills): SkillsUSA Officer Training, Officer Elections, Chapter Meeting

Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C

Academic Standards: ELA.11-12.W.4, ELA.11-12.W.5, ELA.11-12.SL.4, ELA.11-12.SL.6, ELA.11-12.W.5, ELA.11-12.RI.10, ELA.11-12.W.5, ELA.11-12.RI.10, ELA.11-12.W.4, ELA.11-12.W.9, ELA.11-12.L.4, ELA.11-12.RI.2, ELA.11-12.W.2,

5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 6.EE.A.2, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, A-CED.A.1, G-GMD.A.3

Work-based Learning: Guest Speaker, job application (resume)

Technical Standard: 1.1-1.11, 2.1-2.3, 3.1-3.3, 4.1-4.8

Unit 2 (5 Weeks)

Masonry*:

- Theory, Tools & Block Laying

CTSO Integration (Leadership Skills): AZ Masonry Expo, AZ Construction Expo, Chapter Meeting

Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C

Academic Standards: ELA.11-12.L.4, ELA.11-12.RI.2, ELA.11-12.SL.3, ELA.11-12.SL.4, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3

Work-based Learning: integrated project with industry partner, guest speaker, virtual exchange with partner, simulated lab experience

Technical Standard: 6.1-6.6

Unit 3 (3 Weeks)

Site Layout:

- Theory, Equipment & Lab Application

CTSO Integration (Leadership Skills): SkillsUSA Fall Leadership Conference, Chapter Meeting

Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C

Academic Standards: ELA.11-12.L.4, ELA.11-12.RI.2, ELA.11-12.W.8, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3

Work-based Learning: integrated project with professionals, workplace visit

Technical Standard: 5.1-5.3

Unit 4 (2 Weeks)

Concrete:

- Theory, Tools & Forms
- CTSO Integration (Leadership Skills): Chapter Meeting
- Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C
- Academic Standards: ELA.11-12.L.4, ELA.11-12.RI.2, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3
- Work-based Learning: Integrated project with professionals, workplace visit
- Technical Standard: 16.1-16.4

Unit 5 (2 Weeks)

Floor Systems:

- Components, Materials/Spans & Framing
- CTSO Integration (Leadership Skills): SkillsUSA Competition Preparation, Chapter Meeting
- Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C
- Academic Standards: ELA.11-12.L.4, ELA.11-12.RI.2, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3
- Work-based Learning: Career Fair
- Technical Standard: 7.1, 7.4-7.6

Semester 1

GC103 General Construction I & II
(19 Weeks)

Unit 6 (2 Weeks)

Wall Systems:

- Components, Materials/Spacing & Framing
- CTSO Integration (Leadership Skills): Chapter Meeting
- Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C
- Academic Standards: ELA.11-12.L.4, ELA.11-12.RI.2, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3
- Work-based Learning: field trip
- Technical Standard: 7.3, 8.1-8.4

Unit 7 (1 Week)

Projects:

- Real world application of knowledge, skills & standards
- CTSO Integration (Leadership Skills): SkillsUSA Competition Preparation, Chapter Meeting
- Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C

- Academic Standards: ELA.11-12.L.4, ELA.11-12.RI.2, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3
- Work-based Learning: School Based Enterprise
- Technical Standard 1.1 thru 8.4, 16.1 thru 16.4

Semester Exam

Year 1, Semester 2

GC104 - General Construction III & IV
(17 Weeks)

Unit 8 (5 Weeks)

Joist/Roof Applications:

- Components
- Materials/Spacing
- Installation

CTSO Integration (Leadership Skills): Chapter Meeting
Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C

Academic Standards: ELA.11-12.W.6, ELA.11-12.L.4, ELA.11-12.RI.2, ELA.11-12.SL.3, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3
Work-based Learning: mock interview, job app resume, job shadow, guest speaker
Technical Standard: 7.2, 9.1-9.5

Unit 9 (2 Weeks)

Doors/Windows:

- Components
- Materials
- Installation

CTSO Integration (Leadership Skills): SkillsUSA Week, Chapter Meeting

Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C
Academic Standards: ELA.11-12.L.4, ELA.11-12.RI.2, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3
Work-Based Learning: informational interview/virtual exchange with industry partner
Technical Standard: 10.5

Unit 10 (3 Weeks)

Exterior/Interior Finish:

- Components
- Materials
- Installation

CTSO Integration (Leadership Skills): SkillsUSA Region 5 Conference, Chapter Meeting
Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C

Academic Standards: ELA.11-12.L.4, ELA.11-12.RI.2, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3

Work-based Learning: guest speaker

Technical Standard: 10.1, 10.6, 11.1-11.4, 12.3, 15.1-15.6

Unit 11 (2 Weeks)

Stairs:

- Materials and Layout

CTSO Integration (Leadership Skills): Chapter Meeting
Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C

Academic Standards: ELA.11-12.W.5, ELA.11-12.L.4, ELA.11-12.RI.2, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3

Work-based Learning: Field Trip

Technical Standard: 12.1 – 12.2

Unit 12 (1 Week)

Electrical/HVAC:

- Components, Theory & Installation

Certification: NC3 Multimeter

CTSO Integration (Leadership Skills): SkillsUSA Arizona Conference, Chapter Meeting
Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C

Academic Standards: ELA.11-12.L.4, ELA.11-12.RI.2, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3

Work-based Learning: Guest Speaker

Technical Standard: 10.2-10.4, 14.1-14.7

ADE Technical Assessment

Unit 13 (1 Week)

Plumbing:

- Materials, Theory & Installation

CTSO Integration (Leadership Skills): SkillsUSA End of Program Celebration, Chapter Meeting

Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C

Academic Standards: ELA.11-12.L.4, ELA.11-12.RI.2, ELA.11-12.SL.3, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3

Work-Based Learning: mock interviews, job application, job shadowing

Technical Standard: 13.1-13.7

Unit 14 (3 Weeks)

Projects:

- Real world application of knowledge, skills & Standards

CTSO Integration (Leadership Skills): SkillsUSA National Skills & Leadership Conference, Community Service Project, Chapter Meeting

Professional Skills: 1.A-D, 2.A-C, 3.A-E, 4.A-F, 5.A-E, 6.A-C, 7.A-C, 8.A-I, 9.A-C

Academic Standards: ELA.11-12.L.4, ELA.11-12.RI.2,
ELA.11-12.RI.10, ELA.11-12.RI.10, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7,
6.RP.A.3, 7.EE.B.3, 7.RP.A.3, 7.G.B.4, 8.G.B.7, G-GMD.A.3
Work-based Learning: Student Based Enterprise
Technical Standards: 1.1 thru 16.4

District Post-Assessment

Arizona Department of Education (ADE)
Common AZCCR Math Standards (CAMS)
English Language Art Standards (ELAS)
National Center for Construction Education and Research
(NCCER)